

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002368**Date Inspected:** 10-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:****CWI Present:**

Yes No

Inspected CWI report: Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

Bay 3

This Quality Assurance Inspector (QAI) observed tack welding of WT's to side plates SP309-001, SP096-001 & SP336-001 by Zhenhua Port Machinery Company (ZPMC) welders Wang Zhonghue, welder identification (WID) 053753; Han Xiaofeng, WID 054467; Zhang Feng, WID 049769 and Lv Peng, WID 048617. Tack welding was being carried out by the shield metal arc welding (SMAW) process.

This QAI also marked up weld joints BP169-001-049, BP061-001-049 and BP034-001-049 for radiographic testing (RT). The areas marked accounted for 5% of the total weld lengths. For BP169-001-049 a 138mm long section starting at Y location 1100mm was marked up, for BP061-001-029 a 156mm long section starting at Y location 1100mm was marked and for BP034-001-049 a 138mm long section starting at Y location 1500 was marked up.

Bay 4

This QAI observed welding of ESD1 SA318 A/B 3B & 4B by ZPMC welder Gu Caihong, WID 053748 using the submerged arc welding (SAW) process. Some of the essential welding variables observed and recorded were: preheat 200°C, V 30, A612 and travel speed 495 mm per minute. This QAI also observed welding of WSD1 SA234 A/B-10A by ZMPC welder Jiang Jingteng, WID 046830 with the SAW process. Some of the essential welding variables observed and recorded for weld pass 32 were: preheat 200°C, V 30, A 618 and travel speed 500 mm per minute. The ZPMC CWI was Zhao Chen Sun. Welding of pick-ups was also observed on SP526-001

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between the WT's and side plate by ZPMC welder Dai Lu, WID 048659 with the SMAW process. ZPMC Quality Control Inspector (QCI) was Huang Min.

Heat straightening was being carried out on side plate SP148-001-001, 008-019 and 032 through 043 with HSR1 (B)-829. The ZPMC QCI was Hang Qang.

Bay 7

This QAI observed welding of floor beam (FB) FB014-015-023 by ZMPC welder Ho Yacheng, WID 049339 with the SMAW process in the horizontal fillet (2F) welding position. Some of the essential welding variables observed and recorded were; preheat 78° Celsius (C); voltage (V) 25.2; amperage (A) 170 and travel speed 122 mm per minute. The ZPMC Certified Welding Inspector (CWI) was Li Pengfei and the American Bridge/Fluor representative was Wang Heng. This QAI also observed welding of FB004-006-002 by ZMPC welder Yang Gencheng, WID 066418 with the SMAW process in the 2F welding position. Some of the essential welding variables observed and recorded were; preheat 65° C; V 24.8; A 173 and travel speed 120 mm per minute. Further welding was observed on FB004-009 on various flange to web welds by Zhang Jiang, WID 067636 and Cheng Shuanzong WID 644824. Some of the essential welding variables observed and recorded were preheat 76°C, V 26.1, A 211 and travel speed 116mm per minute.

Bay 8

This QAI observed welding by ZPMC welder Chen Jinnian, WID 045148 on SSD1 SA219 with the SMAW process. Some of the essential welding variables observed and recorded were: preheat 155°C, V 23.7, A 176 and travel speed 108 mm per minute. The ZPMC QCI was Sha Zhi and the ABF representative was Yang Ti Heng. Further welding observed was by ZPMC welder Xu Peipie, WID 050323 welding with the SAW process on SSD1 SA126B-1A. Some of the essential welding variables observed and recorded were: preheat 91°, V 30.3, A 511 and travel speed 435 mm per minute. The ZPMC CWI was Lv Liqing.

NDT

This QAI reviewed the radiograph weld quality and the radiographic report submitted by ABF through Transmittal TL-08-1159, ZPMC transmittal TL-001187 for deck panel splice weld DP167-001-189. The weld and radiograph appeared to be in compliance with the code and specification. For details see radiographic report TL-6029 dated May 10, 2008.

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Summary of Conversations:

No conversations held today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Berger, Bruce
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Quality Assurance Inspector

Reviewed By:	Cochran, Jim
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QA Reviewer
